

REMARKS

In the Claims

The claims are amended to place the claim in better form in accordance to conventional U.S. claim language terminology. The new claims find support for claim 12 on page 8-9, the paragraph that spans across those two pages, for claim 13 page 8, lines 6-7 from the bottom, for claim 14 page 9, first full paragraph, for claim 13 page 9, second full paragraph for claim 15, for claim 16 support can be found in original claims 1 and 3, for claim 17 in original claim 2. No new matter is added.

Election/Restriction

Applicants elect with traverse Group I, claims 1-7 and 9 drawn to compounds as specified in the Office Action. The invention claimed in the application forms a single inventive concept under PCT Rule 13.1.

Specifically, no specific reason by the Office Action is provided for the carving out from Group I, the compounds of formula I when R⁴ joins with R⁵ to form a five or six membered carbocyclic compound. The Office Action alleges generally that the groups lack the same or corresponding technical feature because they lack a common core. Compounds falling into both Group I and Group II, for example, are compounds according to the same formula I. They do therefore have a common core, i.e., the fused ring, and thus the full scope of both Groups I and II should at least be analyzed. Moreover, what constitutes a “common core “ has been liberally interpreted. *In re Harnisch*, 206 USPQ 300 (1980), involved a very similar, nearly identical, situation where a rejection was issued with regard to two groups attached to a nitrogen atom, which in turn was attached to a fixed ring structure. The said two groups were defined individually as well as conjointly forming with the N atom a heterocyclic ring. The court reversed the rejection even though the Office Action maintained that the compounds encompassed by the claims were not functionally equivalent, were unrelated physically and chemically, and would be repugnant to scientific classification principles to associate them as a generic group. The court held that the single structural similarity was sufficient enough for the groups to be part of a proper Markush group and they were not misjoined as independent and distinct inventions. The restriction with regard to R⁴ and R⁵

when they form a five or six membered carbocyclic compound, and also with regard to the restriction in its entirety between Groups I and II is improper in light of the holding in *In re Harnisch*.

Reconsideration of the restriction requirement is respectfully solicited.

Claim Rejections Under 35 USC § 112, first paragraph

Claims 1-7 and 9 were rejected under 35 USC § 112, first paragraph, for allegedly not being enabled.

Applicants direct the attention of the Examiner to page 7, first full paragraph in its entirety. The paragraph gives specific examples of the 5- to 7-membered saturated heterocycle both in its unsubstituted and substituted forms. Example 10 specifically enables the preparation of a compound where R⁴ and R⁵ form a carbocyclic ring, which is substituted by an NR¹⁴R¹⁵ wherein the R¹⁴ and R¹⁵ come together with the N atom to form a heterocycle which is substituted by Cl. Claims 1-7 and 9 are therefore adequately enabled.

Claim Rejections Under 35 USC § 112, second paragraph

Claims 1-7 and 9 were rejected under 35 USC § 112, second paragraph, for allegedly being indefinite.

Applicants do not agree with the basis of the rejections in sections A-C of the Office Action. The Office Action asks the Applicants which carbocyclic rings the applicant is claiming, for example, in section A. A “five-or six-membered carbocyclic compound” is a cyclic compound containing carbon and having five or six members. These terms are art recognized and their meanings are clear to one of ordinary skill in the art. The fact that it covers a large class of compound is immaterial to whether the claim is indefinite. The Patent Office has no concern over the breadth of a term, its only relevant concern should be over the truth of such assertions. Section 112 only requires objective enablement. “How such a teaching is set forth, either by the use of illustrative examples or by broad terminology, is of no importance.” See *In re Marzocchi*, 169 USPQ 367 (1971). The same is true with respect to “5- or 6-membered heteroaryl” or a “5- to 7-membered saturated heterocycle”. These terms are art recognized and their meanings are clear to one of ordinary skill in the art, plus

specific examples are given for each in the specification. Withdrawal of these rejections is thus respectfully requested.

Rejections in sections D and F are moot in light of the amendments to the claims in accordance with the Examiner's suggestions.

The rejection of the term "neurodegenerative diseases" as allegedly being indefinite in Section E is traversed. The term "neurodegenerative diseases" in the art has a well recognized and delineated meaning. The phrase is broad, and it does encompass a wide range of diseases, but the patent laws allow an applicant to claim broadly. A broad claim is not indefinite if the breadth of the claim is ascertainable. See *In re Marzocchi*, supra. Applicants in the specification provide numerous representative examples for further support of the breadth of the claims. Withdrawal of the rejection is respectfully requested.

Withdrawal of all the rejections and the reconsideration of the restriction requirement is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



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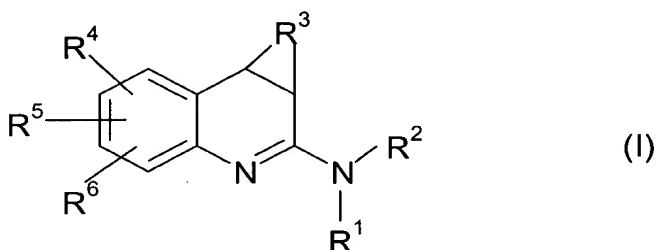
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

Please amend the claims as follows:

1. (Amended) A ~~Compound~~ compound of formula I, ~~in which the substituents have the following meaning:~~



wherein

R¹ and R² ~~mean are~~, independently of one another; a) hydrogen, b) C₁₋₆ alkyl, e) OR⁷, d) NR⁷R⁸, e) CN, f) acyl, g) CO₂R⁹, h) CONR⁷R⁸, or i) CSNR⁷R⁸,

R³ ~~means is~~ a saturated or unsaturated C₁₋₅ alkylene radical, which ~~can be~~ is optionally substituted in 1 to 4 places with OR⁷, NR¹¹R¹² or C₁₋₄ alkyl and in which 1 or 2 CH₂ groups ~~can be~~ are optionally and independently replaced by O, S(O)_n, NR⁸, =N- or carbonyl, and which ~~can be~~ are optionally bridged with a methano, ethano or propano group,

R⁴ ~~means is~~ C₁₋₄ alkyl, substituted with NR¹⁴R¹⁵, or

R⁴ and R⁵ optionally together with 2 adjacent carbon atoms form a ~~five- or five- or six~~ membered carbocyclic compound, which ~~can be~~ is optionally substituted with NR¹⁴R¹⁵,

R⁵ and R⁶ ~~mean are~~, independently of one another; a) Hydrogen, b) halogen, e) OR⁷, d) C₁₋₄ alkyl, e) CF₃, or f) OCF₃,

R⁷, R¹⁸

and R¹⁹ ~~mean are~~, independently of one another; a) Hydrogen, b) C₁₋₆ alkyl, or ~~C6-10~~ C₆₋₁₀ aryl, which optionally is substituted with halogen or C₁₋₄ alkyl,

R^8, R^{11}

and R^{12}

~~mean are~~, independently of one another; a) Hydrogen, b) C_{1-6} alkyl, e) C_{6-10} aryl, which optionally is substituted with halogen or C_{1-4} alkyl, d) COR^{10} , e) CO_2R^{10} , f) $CONR^{18}R^{19}$, or g) $CSNR^{18}R^{19}$,

R^9, R^{10}

and R^{20}

~~mean are~~, independently of one another; a) C_{1-6} alkyl, or ~~C_{6-10}~~ C_{6-10} aryl, which optionally is substituted with halogen or C_{1-4} alkyl,

R^{14} and R^{15}

~~mean are~~, independently of one another; a) Hydrogen, b) CO_2R^{20} , or e) C_{1-6} alkyl, which optionally is substituted with halogen, hydroxy, C_{1-4} alkoxy, nitro, amino, C_{1-6} alkyl, trifluoromethyl, carboxyl, cyano, carboxamido, C_{3-7} cycloalkyl, indanyl, 1,2,3,4-tetrahydronaphthyl, C_{6-10} aryl, 5- or 6-membered heteroaryl with 1-4 nitrogen, oxygen or sulfur atoms, which ~~can be~~ are optionally annelated with benzene, whereby the aryl radical and the heteroaryl radical ~~can be~~ are optionally substituted with halogen, hydroxy, C_{1-4} alkoxy, C_{1-4} alkyl, CF_3 , NO_2 , NH_2 , $N(C_{1-4} \text{ alkyl})_2$ or carboxyl, or

R^{14} and R^{15}

optionally together with the nitrogen atom of R^4 or R^4 and R^5 together form a 5- to 7-membered saturated heterocycle, which ~~can contain another oxygen, nitrogen or sulfur~~ optionally comprises an oxygen, sulphur or another nitrogen atom and ~~can be~~ are optionally substituted with C_{1-4} alkyl, ~~or a~~ phenyl, benzyl or benzoyl radical ~~that~~ which is optionally substituted with halogen, or an unsaturated 5-membered heterocycle, which ~~can contain~~ optionally contains 1-3 N atoms and ~~can be~~ is optionally substituted with phenyl, C_{1-4} alkyl, halogen or CH_2-OH , and

n

~~means~~ is 0, 1 or 2,

~~and their~~ or tautomeric and isomeric forms and salts of a compound of formula I.

2. (Amended) A compound according to claim 1, in which R^3 ~~means~~ is a C_{1-5} alkylene radical, which ~~can be~~ is optionally bridged with a methano, ethano or propano group.

3. (Amended) A compound according to claim 1, in which R^1 and R^2 ~~mean~~ are hydrogen.

4. (Amended) A compound according to claim 1, in which R⁴ and R⁵ together with two adjacent carbon atoms form a 5- or 6-membered carbocyclic compound, which can be optionally substituted with NR¹⁴R¹⁵.

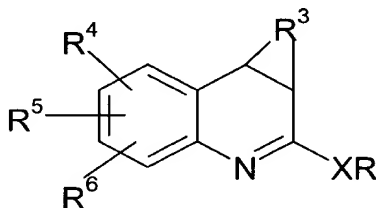
6. (Amended) A pharmaceutical agent composition comprising a an effective amount of a compound according to claims 1, and a pharmaceutically ~~common~~ acceptable vehicle or adjuvant.

7. (Amended) A process for the ~~production~~ preparation of a pharmaceutical ~~agent composition~~ comprising combining a ~~therapeutic~~ an effective amount of at least one compound according to claim 1, and at least one solid, liquid or semi-liquid excipient or auxiliary and, optionally, one or more other active compounds.

Claim 8 has been cancelled.

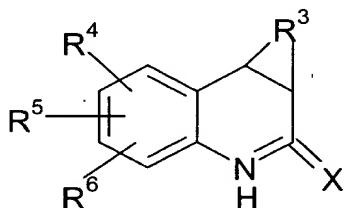
9. (Amended) A method for treating a neurodegenerative diseases disease comprising administering a ~~therapeutic amount of a compound according to claim 8~~ an effective amount of a compound according to claim 1.

10. (Amended) A process for the ~~production~~ preparation of a compound according to claim 1, wherein a compound of formula ~~(II)~~ (IIa) or (IIb) or its salt



IIa

or



IIb

~~in which~~ wherein

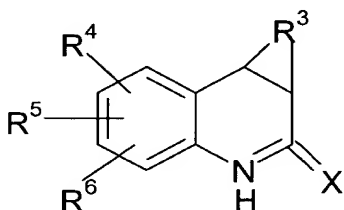
R^3 to R^6 ~~have the above meaning~~ are as defined in claim 1,

R ~~means~~ is methyl or ethyl, and

X = is O or S,

is reacted with ammonia, a primary or secondary ~~amines~~ amine, a hydroxylamine and/or its derivatives, or hydrazine and/or its derivatives, and optionally then the isomers are separated and the salts are formed.

11. (Amended) A compound of the formula (IIb)



IIb

~~in which~~ wherein

R^3 to R^6 ~~have the above meaning, and~~ are as defined in claim 1,

X = is O or S,

~~and their~~ or tautomeric and isomeric forms and salts of a compound of formula (IIb).

Claims 12-17 have been added.